

29 MAY 2003

a) said easy-to-open means comprise at least one so-called line of weakness (44), described as being lower, located on the cover at a height H that defines a partition of said cover with a so-called upper part (10) and a so-called lower part (11), the height being such that after said cover and said recipient or sealed bottle have been assembled said line of weakness (44) breaks when said recipient or said bottle is first opened to provide access to said cork or possibly said cork wire once said upper part (10) has been removed, said lower part (11) remaining intact on the neck,

c) said cover comprises at least one additional
30 means selected from one of the following: a second so-
called upper line of weakness (43) in said upper part

(10), means (67) for reinforcing all or part of said lower part (11), means (66) for fastening all or part of said lower part (11) to the neck, means for reinforcing all or part of said upper part (10) such that when said recipient or bottle is opened for said first time said tear strip (45), which is created by pulling on gripping tab (46), removes the whole of said upper part (10) along with it, the lower edge of said strip being constituted when said line of weakness (44) breaks.

2. Cover of claim 1 comprising a so-called upper line of weakness (43) all or part of which is separated from the top of the so-called lower line by a distance L at least equal to $0.5 H$, H being the height between the so-called lower line and the upper or top end of said cover (1), lines of weakness (43, 44) that define an opening strip (45) of width L.

3. Cover of claim 2 wherein gripping tab (46) is positioned according to a generating line of said cone and is located between two lines of weakness (43, 44) and fastened to said opening strip (45), said tab (46) using said notches (460, 461) to automatically direct the tearing strain when said cover is opened towards said two lines of weakness (43, 44) such that said cover is opened easily, ensuring the remaining lower part 11 of the cover located beneath said lower line (44) stays intact and said cork wire 3, if fitted, is freed.

4. Cover of any of claims 1 to 3 wherein said tab (46) comprises notches or recesses (460, 461) made in said film or sheet material constituting said cover, said notches constituting the means to direct the tearing strain.

5. Cover of any of claims 1 to 4 wherein width L_1 of said tab (46) ranges from 0.5 L to L with L ranging between 1.5 and 4 cm.

6. Cover of any of claims 1 to 5 wherein said
5 means for reinforcing lower part (11, 65) is a lower reinforcement (67) that increases the mechanical properties of all or part of said lower part (11) and adheres to all or part of the inner surface of said lower part (11, 65) at least along said lower line of
10 weakness (44) and parallel to said lower line of weakness, said lower reinforcement (67) may also comprise an adhesive layer over all or part of the surface that can be activated and that is intended to adhere to said neck.

15 7. Cover of claim 6 wherein the entire lower reinforcement (67) may comprise a layer that can be activated and constitutes a circular strip (68) the width of which is at least equal to 5 mm and that can extend over all or part of the height of said lower
20 part (11) and that is adjacent to at least the upper edge of said lower part (11) along and parallel to said lower line of weakness (44).

8. Cover of any of claims 1 to 7 wherein all or part of the inner surface of said lower part (11)
25 comprises a layer of glue or adhesive as fastening means that can be activated and that constitutes a bonded part 66 that adheres to said neck, typically after it has been activated.

9. Cover of claim 8 wherein said glue or adhesive
30 comprises a complex layer consisting of a layer that adheres to the glass and a layer that adheres to the material comprising the inner surface of said cover,

typically aluminum, paper or a layer of plastic material or varnish.

10. Cover of any of claims 1 to 9 wherein reinforcement means (47) of said upper part is
5 selected, particularly in terms of type and position on the inner surface of said upper part, to increase the mechanical properties of all or part of said upper part such that when said recipient or bottle is opened for said first time said opening strip (45), which is
10 created by pulling on gripping tab (46), removes the whole of said upper part (10) along with it.

11. Cover of claim 10 wherein said upper reinforcement means (47) comprise a lateral end (472) that reinforces all or part of said gripping tab (46).

15 12. Cover of claim 11 wherein said lateral end (472) extends beyond said gripping tab such that said lateral end (472) assumes the role of said gripping tab when the cover is first opened.

13. Cover of any of claims 10 to 12 wherein said
20 upper reinforcement means (47) comprise a reinforcement strip or line that includes a lower part or edge (471) adjacent to lower line of weakness (44).

14. Cover of claim 13 wherein said reinforcement means (47) comprise an upper part or edge (470) that
25 may or may not belong to the same reinforcement strip or line, said upper (470) and lower edges (471) being separated by a width L , that is constant or otherwise depending on angular position α , width L ranging typically between 0.4 and 4 cm, average width L being
30 preferably between 0.3 and 0.7 times H , H being the height between the so-called lower line and the upper end or top of said cover (1).

15. Cover of claim 14 wherein width L is not constant and increases, typically regularly, with the angular position α , width L being at its smallest at said tab (46) where angle α is equal to 0.

5 16. Cover of any of claims 10 to 15 wherein said upper reinforcement means (47) cover the entire interior surface or inner periphery of the free part of said opening strip (45).

10 17. Cover of any of claims 1 to 16 wherein said upper (47) or lower (67) reinforcement means consist either of a thin sheet or reinforcement strip, typically of a plastic material (preferably PET or PP), paper, or a layer, strip or line of plastic, resin, varnish or paint material.

15 18. Cover of any claims 1 to 17 wherein said material constituting said cover is selected from sheets or strips of Al or Al alloys, Sn or Sn alloys, shrinkable plastic, Al/PO/Al complex multilayers, Al/PO/paper, PO/Al/PO, charged PO/Al/PO, where Al
20 refers to a layer of aluminum, PO a layer of polyolefin (preferably PE) capable of containing a charge that is typically mineral.

25 19. Cover of claim 18 wherein the thickness of said material in sheets or strips may range between 25 and 50 μm when the material is aluminum or an alloy, between 110 and 150 μm when the material is tin or an alloy, between 60 and 100 μm when the material is a shrinkable plastic film and between 60 and 110 μm when the material is a complex multilayer material,
30 typically Al/PO/Al.

20. Method for producing covers (1) of any of claims 1 to 19 wherein:

- a blank of arc (6) of said skirt is cut out of said film or sheet material of height H',

- said lower line of weakness (44) and said notches (460, 461) are provided on an axial edge (60),

5 - said additional means are provided, being selected from said upper line of weakness (43), said upper reinforcement means (47, 48), said lower reinforcement means (67), said means (66) for fastening all or part of lower part (11) to the neck,

10 - a radial line of heat- or pressure-activated adhesive (63) applied, typically on the other axial edge (61) of said arc, except on the matching part or opposite said tab (46),

15 - said arc (6) is rolled on a chuck by folding axial edge (60) back onto the other axial edge (61), a line of adhesive is applied between the two edges, or said pre-applied radial line of adhesive is activated, to shape said skirt (4) by pressing edges (60, 61) together and possibly creating said grooves (9), and a
20 head (5) is assembled or created, possibly by adding a part of the head and fastening it typically by thermobonding to upper rim (64) of said skirt that is possibly shrunk and folded.

21. Method of claim 20 wherein the upper or lower
25 reinforcement can be deposited either by bonding a strip or part of a strip according to the mechanical characteristics required, which are typically resistance to tearing, and of a required shape, which is typically part of an annular sector, or by using a
30 gun to apply a strip or line of melted plastic material that is adherent and that hardens when applied.

22. Method of claim 21 wherein said upper and lower reinforcement means are a self-adhesive label of suitable shape applied to said arc (6).

23. Use of a cover of any of claims 1 to 19 as an
5 overcapping cap for still wines.